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REMARKS

This is in response to the Office Action dated January 6, 2003. Claim 4 has been canceled. Thus, claims 1-3 and 5-9 are now pending. Attached hereto is a marked-up version of the changes made to the claim(s) by the current amendment. The attached page(s) is captioned "**Version With Markings To Show Changes Made.**"

For purposes of example and without limitation, certain example embodiments of this invention relate to a protective coating formed on a light emitting surface(s) of a semiconductor laser device having an active layer 53 comprised of GaAlAs. The active layer 53 is uniform with respect to absorption of an emission wavelength throughout its length including at respective end portions thereof, as the instant application explains that the active layer is deposited in the same manner throughout its length. For example, Fig. 1A of the instant application illustrates Si film 52a formed on the light emitting surface 51a of laser chip 51. The Si film 52a is formed between the light emitting surface 51a and the oxide protective coating 52b. The protective coating 52b comprises Al_2O_3 or the like. The provision of Si film 52a is advantageous in that, when coating 52b is formed, film 52a prevents oxygen with high energy from colliding or bonding with the light emitting end surface 51a, and allows for control of damage in the vicinity of the light emitting end surface 51a (e.g., pg. 16, lines 12-25). Si film 52a is formed to have a film thickness of approximately 40 Å or less. This small thickness makes it possible to eliminate generation of leakage current in the Si film (light emitting end surface) and prevents/reduces negative influence on oscillation characteristics of the laser device (e.g., pg. 15, lines 5-10). Moreover, the protective layer prevents oxygen from entering the

active layer 53 thereby allowing the active layer 53 to maintain its uniformity with respect to absorption of an emission wavelength throughout its length including at respective end portions thereof.

Claim 1 stands rejected under 35 U.S.C. Section 102(e) as being allegedly anticipated by Horie (US 6,323,052). This Section 102(e) rejection is respectfully traversed for at least the following reasons.

Claim 1 requires that "the semiconductor laser device includes an active layer comprised of GaAlAs, wherein said active layer is uniform with respect to absorption of an emission wavelength throughout its length including at respective end portions thereof." As explained in the instant specification, the active layer 53 is deposited in the same manner throughout its length, and oxygen is prevented from entering the layer at ends thereof due to the protective layer(s); thereby allowing the active layer to be uniform with respect to absorption of an emission wavelength throughout its length including at end portions thereof. The cited art fails to disclose or suggest the aforesaid underlined aspect of claim 1.

Horie discloses a light emitting device which, as shown in Fig. 1, includes a-Si film 14 and a dielectric layer 15, 16 which may be of aluminum oxide. However, Horie significantly differs from the invention of claim 1 in that Horie expressly requires that the active layer is much more transmissive to emission wavelengths in the vicinity of the end facets than at other locations. Horie achieves the desired *non-uniformity* of absorption by irradiating the facets with plasma or the like (the so-called window structure) (e.g., Abstract, lines 11-12; col. 4, lines 12-17 and 44-58; and col. 18, lines 27-56). In fact,

Horie states that this irradiation of the facets of the active layer to make them non-uniform with respect to absorption compared to the rest of the layer is the entire "basis" of Horie's invention (col. 4, lines 52-59).

Thus, it can be seen that Horie clearly fails to disclose or suggest an active layer that is "uniform with respect to absorption of an emission wavelength throughout its length including at respective end portions thereof" as required by claim 1. Moreover, one of ordinary skill in the art would never have modified Horie to meet this aspect of claim 1 because to do so would destroy the very "basis" of Horie's alleged invention which is to provide an active layer which is much more transmissive at ends thereof than at the central portion thereof.

Claim 9 requires that "the semiconductor laser device includes an active layer comprised of GaAlAs, wherein said active layer is uniform with respect to absorption of an emission wavelength throughout its length including at respective end portions thereof." Again, Horie fails to disclose or suggest this aspect of claim 9.

For at least the foregoing reasons, it is respectfully requested that all rejections be withdrawn. All claims are in condition for allowance. If any minor matter remains to be resolved, the Examiner is invited to telephone the undersigned with regard to the same.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS

Please cancel claim 4.

1. (Amended) A semiconductor laser device, comprising:

an oxide formed as a protective coating on at least one light emitting end surface of a semiconductor laser chip; [and]

an Si film having a film thickness of 40 Å or less formed between the at least one light emitting end surface and the oxide protective coating[.]; and

wherein the semiconductor laser device includes an active layer comprised of GaAlAs, wherein said active layer is uniform with respect to absorption of an emission wavelength throughout its length including at respective end portions thereof.

9. (Amended) A semiconductor laser device, comprising:

a semiconductor laser chip;

a protective coating comprising Al_2O_3 formed on a light emitting end surface of the semiconductor laser chip; [and]

an intermediate film comprising silicon having a thickness of 40 Å or less formed between the light emitting end surface of the chip and the protective coating comprising Al_2O_3[.]; and

wherein the semiconductor laser device includes an active layer comprised of GaAlAs, wherein said active layer is uniform with respect to absorption of an emission wavelength throughout its length including at respective end portions thereof.